

Remarks

Applicant respectfully requests reconsideration of this application as amended. Claims 1, 2, 5, 6, 9, 11, 12, 19, 22, 24, 30, 31, 33, 35, 37, 41, 45, 50, 51, 53, and 56 have been amended. Claims 3-4, 10, 18, 20-21, 27-29, 32, 36, 40, 42, 47-49, 52, 54, 55, and 57-58 have been canceled. No claims have been added. Therefore, claims 1-2, 5-9, 11-17, 19, 22-26, 30-31, 33-35, 37-39, 41, 43-46, 50-51, 53, and 56 are presented for examination.

35 U.S.C. §101 Rejection

Claims 30-49 stand rejected under 35 U.S.C. §101 because the claimed invention is directed to non-statutory subject matter. Specifically, the Final Office Action states that “claims 30, 35, and 41 recited resource determinator, resource optimizer, transition type determinator, VMM operation controller, notification receiver, and operation performer are all software modules/functions.” (Final Office Action, 8/13/08, pg. 2, pt. 4.) The Examiner further elaborates on this rejection in the Advisory Action when stating “the phrase ‘might be performed by a specific hardware components’ indicated there is a possibility that it is performed by software. In addition, the claim [sic] did not claim the hardware part.” (Advisory Action, 10/14/08, Continuation Sheet.)

However, claims 30-49 all are claimed as “an apparatus,” which is a statutory patentable subject matter category. The utilization of an “apparatus” category necessarily encompasses the claiming of a hardware implementation of the modules in claims 30, 35, and 41, and limits these claims to this implementation. This hardware implementation is found in Figures 2 and 9, and their associated descriptions. Applicant would like to point

out that Therefore, applicant respectfully requests the withdrawal of the present §101 rejection.

35 U.S.C. §102 Rejection

Claims 1-58 stand rejected under 35 U.S.C. §102(b) as being anticipated by Shorter, U.S. Patent No. 5,063,500 (“Shorter”). Applicant submits that the present claims are not anticipated by Shorter.

Shorter discloses a method for executing distributed applications in a data processing network. (Shorter at col. 5, ll. 63-64.) Specifically, Shorter discloses a method to preserve resources during the execution of distributed application programs in an SNA type data processing network that supports program to program communication between an Intelligent Work Station (IWS) and a host processor in accordance with SNA Logical Unit 6.2 protocols when a Virtual Machine Pool Manager exists at the host processor. (Shorter at Abstract.)

Claim 1, as amended, recites:

A computer-implemented method comprising:
receiving an instruction executed by a Virtual Machine Monitor (VMM);
identifying, based on the instruction, that an initial transition from the VMM to one or more virtual machines (VMs) is about to occur; and
utilizing processor-managed resources associated with the one or more VMs based on the initial transition.

Applicant submits that Shorter does not disclose or suggest identifying, based on an instruction executed by a virtual machine monitor (VMM), that an initial transition from the VMM to one or more virtual machines (VMs) is about to occur. The Advisory Action states that claim 1 of Shorter discloses that the “VMM makes a determination how

to invoke the virtual machine based upon the PRID and the THRID, the VMM can determine [sic] what is the transition to the VM, first transition is to a new VM or subsequent transition to an existing VM.” (Advisory Action at Continuation Sheet.) However, applicant can find no discussion in claim 1 of Shorter of any first or subsequent transition to VMs, or, as the Advisory Action maintains, of the process identifier (PRID) and thread identifier (THRID) indicating first and subsequent transitions. Nor is there any discussion in claim 1 of Shorter of the Pool Manager executing an instruction and identifying an initial transition is about to occur from the VMM to one or more VMs based on that instruction.

Therefore, claim 1, as well as its dependent claims, is patentable over Shorter. Independent claims 30 and 50 also recite, in part, identifying, based on an instruction executed by a virtual machine monitor (VMM), that an initial transition from the VMM to one or more virtual machines (VMs) is about to occur. As discussed above, Shorter does not disclose or suggest such a feature. As a result, claims 30 and 50, as well as their respective dependent claims, are patentable over Shorter for the reasons discussed above with respect to claim 1.

Claim 9, as amended, recites:

A computer-implemented method comprising:

determining that an initial transition from a virtual machine monitor (VMM) to a virtual machine (VM) is about to occur based on invocation information of the VM; and

notifying a processor of the initial transition by the VMM executing an instruction associated with the initial transition.

Applicant submits that Shorter does not disclose or suggest determining that an initial transition from a virtual machine monitor (VMM) to a virtual machine (VM) is

about to based on invocation information of the VM, as provided in claim 9. As discussed above with respect to claim 1, there is no teaching, disclosure, or suggestion in claim 1 of Shorter of such a feature. As such, Shorter does not disclose or suggest the cited feature of claim 9.

Therefore, claim 9, as well as its dependent claims, is patentable over Shorter. Independent claims 35 and 56 also recite, in part, determining that an initial transition from a virtual machine monitor (VMM) to a virtual machine (VM) is about to based on invocation information of the VM. As discussed above, Shorter does not disclose or suggest such a feature. As a result, claims 35 and 56, as well as their respective dependent claims, are patentable over Shorter for the reasons discussed above with respect to claim 9.

Claim 19 as amended, recites:

A computer-implemented method comprising:

- identifying execution by a virtual machine monitor (VMM) of an instruction associated with an initial transition from the VMM to a virtual machine (VM), the initial transition being based on invocation information of the VM;
- receiving, from the VMM, a request to perform the initial transition;
- and
- performing a set of operations according to the initial transition.

Applicant submits that Shorter does not disclose or suggest identifying execution by a virtual machine monitor (VMM) of an instruction associated with an initial transition from the VMM to a virtual machine (VM), the initial transition being based on invocation information of the VM, as provided in claim 19. As discussed above with respect to claim 1, there is no teaching, disclosure, or suggestion in claim 1 of Shorter of

such a feature. As such, Shorter does not disclose or suggest the cited feature of claim 19.

Therefore, claim 19, as well as its dependent claims, is patentable over Shorter. Independent claims 41 and 53 also recite, in part, identifying execution by a virtual machine monitor (VMM) of an instruction associated with an initial transition from the VMM to a virtual machine (VM), the initial transition being based on invocation information of the VM. As discussed above, Shorter does not disclose or suggest such a feature. As a result, claims 41 and 53, as well as their respective dependent claims, are patentable over Shorter for the reasons discussed above with respect to claim 19.

Applicant respectfully submits that the rejections have been overcome and that the claims are in condition for allowance. Accordingly, applicant respectfully requests the rejections be withdrawn and the claims be allowed.

The Examiner is requested to call the undersigned at (303) 740-1980 if there remains any issue with allowance of the case.

Applicant respectfully petitions for an extension of time to respond to the outstanding Office Action pursuant to 37 C.F.R. § 1.136(a) should one be necessary. Please charge our Deposit Account No. 02-2666 to cover the necessary fee under 37 C.F.R. § 1.17(a) for such an extension.

Please charge any shortage to our Deposit Account No. 02-2666.

Respectfully submitted,

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